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ABSTRACT

Four dimensions (work tempo, professional focus, career reward structure, and sense of personal power and efficacy) involved in public school-university collaboration are examined. The study had the objectives of using summated rating scales to measure shared perceptions and to describe work perceptions of professional educators. A questionnaire was prepared and sent to people who worked either in a Midwest Holmes Group university or in a public school that cooperates with a Midwest Holmes Group university. Professionals were asked to reflect on how they think and feel about their professional activities. The summated rating scales did function to measure shared perceptions, interpretable from a cultural perspective. Results indicate subcultural differences among educational settings and suggest entering into any collaborative activities mindful of the most severe differences found among positions. It is emphasized that school-university collaboration, for all its difficulties, is a necessary method for educators to use if they really want different points of view represented. The survey instrument is appended, and 10 tables are included. Contains 24 references. (SM)

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WORK PERCEPTIONS OF UNIVERSITY AND PUBLIC SCHOOL EDUCATORS

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WORK PERCEPTIONS OF UNIVERSITY AND PUBLIC SCHOOL EDUCATORS

In the last decade, the call for universities and public schools to join together to upgrade education in America has grown louder. "School-university collaboration" has changed from a general description into a technical term for joint professional efforts between two kinds of institutions which each have a contribution to make to the educational community. Increasing the amount and quality of school-university collaboration promises to be a way for educators to pursue important goals with integrity between means and ends. Goals like better educational research and higher standards for professional teacher preparation are consistent with methods which actively involve both university and public school people.

Collaborative activity requires mutual understanding among educators. Universities and public schools have two different cultures (Sarason, 1982). In order for meaningful communication to occur between them, participants in school-university collaboration must understand the perspectives of both university and public school educators (Gifford & Gabelko, 1987). Such "cross-cultural" understanding is more important for the second wave of educational reforms proposed in the middle and later 1980's than ever before.

Geertz (1973) conceived of culture as a web of meanings constructed by a group of people out of common experiences. Culture consists of the shared frames of reference people use to interpret what others say and do as well as to determine how they will speak and act themselves. Sarason (1982) postulated that culture is not too large or too strong a concept to explain the notable failure of some educational reforms. New Math, for example, a response to the Soviet Union's 1957 launch of Sputnik, was a university effort to enhance the mathematical training given in this country's public schools. But the curriculum was developed to ignore or circumvent teachers, who, it was reasoned in the university curriculum labs, had not succeeded in their function as disseminators of math skills. In the public school culture, the teacher is the center of a mini-universe, the classroom. It makes no sense to ignore or work around the teacher construed this way. "To what extent," Sarason (1982, p. 48) wondered, "was there explicit awareness that people in one subculture in our society wanted to introduce a change in another subculture?"

The purpose of studying culture is to access the conceptual world of the subjects, because only then can one converse with them (Geertz, 1973). Advocating school-university collaboration assumes conversation is possible between school and university people (Buchmann, 1985). Committees can only plan together if the members understand one another when they talk. People with two different frames of reference within which to understand goals and strategies for meeting them will make slightly different sense out of the same proceedings. For example, at a planning session, a university professor might talk about a curriculum change taking "a long time" to implement. By this phrase, he or she might

mean several years. A classroom teacher hearing the phrase might understand it to mean six or eight weeks. Miscommunication can occur where none was intended because of cultural differences. School-university project committees can write their own prescriptions for particular actions if and only if those on each side of the hyphen comprehend one another.

The authors studied material written about the cultures of schools and universities and about the processes and outcomes of collaborative projects. They concluded that the literature gave evidence for four dimensions of meaning to which educators attend and along which they interpret their experiences. For a more detailed review of the literature, including a discussion of this use of the term "culture" and a review of currently used definitions of school-university collaboration, see Brookhart and Loadman (1989). Briefly, four dimensions along which educators in school and university cultures can be expected to differ include the following.

(1) Work tempo: Work time is perceived differently at the public school and the university. For public school personnel, there are certain constraints of time, the necessity to do more than one thing at one time, and a building hours and bell schedule definition of time. Events happen quickly when there are large groups of children involved. University professors need more time for review and reflection and less emphasis on a daily routine and regimented schedules. These differences lead to different perceptions of professional time. (See especially Lieberman & Miller, 1984, and Porter, 1987.)

(2) Professional focus: A host of observations support the idea that professional educators perceive themselves differently with respect to the purpose of their work and their distance from the classroom. "Theory" and "practice" are two traditional names for the ends of a continuum in any field. Classroom teachers' work is centered on activities and action-oriented plans. No less real but at a different conceptual distance are researchable questions, preparation of lectures, and much of the rest of university professional practice. Those on the practical end of the continuum are concerned mainly with the daily application of ideas. Those on the theoretical end of the continuum do their work by thinking in broader terms. (See especially Tikunoff, Ward, & Griffin, 1979, and Hering & Howey, 1982.)

(3) Career reward structure: For schoolteachers, the primary reward for their work is being with children, "reaching" them, and seeing them learn. The university reward structure is very different from the public school reward structure. University rewards come in the form of publication, recognition in an academic field, and academic rank. Public school people are motivated most by intrinsic rewards. University people are more geared toward extrinsic rewards. (See especially Lortie, 1975; Kottkamp, Provenzo, & Cohn, 1986, and Gifford, 1986.)

(4) Sense of personal power and efficacy: Sense of efficacy means a feeling that one's efforts lead to intended outcomes, that what one does makes a difference. Efficacy has been studied as a teacher characteristic related to student outcome measures and classroom atmosphere and teacher change. In comparison with teachers, university educators have traditionally felt more power and status. They perceive themselves as agents whose work yields results. Collaboration for research can lead to a reported increase in feelings of professional competence for classroom teachers. (See especially McLaughlin & Marsh, 1978, Cooper, 1988, Porter, 1987, and Parkay, 1986.)

Objectives

The purpose of this study was to investigate these four dimensions across the two cultures which are involved whenever school-university collaboration occurs. In this study, "collaboration" was defined as work on a joint school-university project for research or teacher training. A fully collaborative project required input from both school and university people in setting project goals, carrying out project activities, and sharing in project benefits. This definition is similar to Schlechty and Whitford's (1988) concept of "organic collaboration" or to Hord's (1986) concept of collaboration as opposed to cooperation. It probably had its first formal expression in Tikunoff and Ward's (Tikunoff, Ward, & Griffin, 1979) Interactive Research and Development on Teaching model. The operational definition of "collaboration experience" for this study was self-reported participation in a project fitting this description for at least three months, the length of one academic quarter.

Conceptually, the population of interest for this study was all educators associated with the nineteen Midwest Holmes institutions, who will increasingly be called upon to practice collaboration because of their institution's membership in the group. (The Holmes Midwest Region steering committee had targeted Holmes Group goal four, "to create partnerships between schools of education and schools," for study in 1987-88.) Operationally, this target population was defined as two groups. One group was full-time faculty members in the college or school of education in any one of the Midwest Holmes institutions. The second group in the target population was classroom teachers and building administrators in school districts which already have regular working relationships (e.g., as field work sites) with one of these institutions and would therefore be likely first-choice candidates for future collaboration, as well. District-level administrators were not included in the population because projects are usually carried out at the building level.

A: To Use Summated Rating Scales to Measure Shared Perceptions

The purpose of this study was twofold. First, the study had a methodological objective. The traditional methods for studying culture have been various kinds of observation and interviews, most suitable for single-case studies. But broad program and policy recommendations, such as the Holmes Group goal "to connect schools of education with schools" (Holmes Group, 1986) call for coordinated decisions which affect several,

or even many, institutions at the same time. A paper-and-pencil approach permits broad sampling. A traditional method for indexing attitudes and perceptions is a summated rating scale (Likert, 1974). This study used a survey methodology and summated rating scales to test whether the four frames of reference described in the literature could be empirically validated across institutions.

The methodological objective was to use these scales to measure four cultural orientations, the four dimensions described above, across institutions within the two cultures. This objective is important. If the summated rating scales behaved as hypothesized, the data would be empirical evidence that those four frames of reference exist as shared perceptions. It was expected that a paper-and-pencil instrument could be written and that four scales could be established, confirmed with factor analysis, and supported with appropriate reliability and validity checks (see Methodology below). Further, the investigators hypothesized that a meaningful interpretation of the data collected would be consistent with the literature reviewed, offering empirical evidence to validate the constructs discovered there.

B: To Describe Work Perceptions of Professional Educators

The substantive research questions were as follows. What are the (1) Tempo, (2) Focus, (3) Reward, and (4) Power perceptions of Midwest Holmes-related public school teachers and administrators and university faculty, and do they differ with respect to position? Do these perceptions vary across institutions? Do they vary with collaboration experience? These questions are important to the Midwest Holmes Group because the answers have implications for the methods participants in school-university collaboration will be able to use effectively.

It was hypothesized that respondents' scale scores on these dimensions would show a main effect for position. This would be evidence that despite individual variation and institutional ("subcultural") variation, universities and public schools in general have two different cultures. Public school educators should have a higher mean Tempo score, indicating a busier pace, and a lower mean Power score, indicating less sense of personal ability to effect change, than university educators. Classroom teachers should have a higher Focus score, signifying a more practical than theoretical orientation. It was also hypothesized that teachers' scale scores would vary with collaboration experience, with those who report having worked with such projects scoring higher on the Power scale. Those planning school-university collaborative projects could use the results of this study and others like it to increase mutual understanding, raising awareness of four areas in which care must be taken to communicate clearly during collaboration.

Method

A: Instrument Development

A draft instrument was prepared, with sixty items. Four scales of fifteen items each reflected agreement or disagreement with four sets of items (Likert, 1974). Items were scored from 1, "strongly disagree," through 5, "strongly agree." Twenty-four reverse-scale items were

included in the sixty pilot items to avoid a response set of overall agreement or disagreement. Four scale scores were defined as the sum of responses to the items on each scale. The Tempo scale measured speed and pace, with a higher score indicating a more frenetic work life. The Focus scale measured theory/practice concerns, with a higher score indicating a more practical orientation and more concern with detail and application. The Reward scale measured degree of concern with being rewarded for one's work, with a higher score indicating more interest in a variety of rewards. The Power scale measured the degree to which one perceived that one's activities yielded results, with a higher score indicating a more "can-do" feeling.

Content validity was established in the following manner. The investigators who identified the four dimensions in the first place wrote the original items. These items were then amended in consultation with a university expert teacher educator, two experienced public school teachers, and two experienced school principals. Two of the public school people were also near completion of Ph.D.'s in teacher preparation and school administration, respectively. The four dimensions were explained to these content experts, and then they were shown items and asked to judge content validity as a match between the dimensions as they understood them and item content.

The instrument was piloted with one hundred school teachers in Columbus, Ohio, and Pittsburgh, Pennsylvania. Exploratory factor analysis of the sixty items did find four factors. Scales were revised by inspecting factor loadings, item intercorrelations, contribution to internal consistency alpha, and item content. Revised scales, ranging in length from 11 to 13 items, each met an alpha reliability criterion of .70. After revision, some items had been realigned based on the factor analysis, and some items had been deleted. Two new items had been written for the Focus scale because alpha for that scale was .69. Two items were put on two scales each, based on item content, factor loadings, and contribution to alpha. The revised scales were rechecked for content validity by repeating the consultation with the experts.

The revised scales were put together, alternating items to minimize context effects, in a forty-five item instrument. Seven reverse items were included. Items were not labeled by scale, so that a confirmatory factor analysis could test whether respondents continued to see four different dimensions among the items. An explanation and directions page was added as a first page. An information page was added as a last page, asking about position and collaboration experience. A copy of the instrument is attached as an Appendix.

B: Sample

Responses were solicited from each of the nineteen Midwest Holmes universities. All nineteen agreed to participate. Contact people in each university provided information about education faculty. In seventeen universities, faculty were sampled randomly by taking every other name on the School or College of Education faculty mailing list. In two universities, the contact people were willing only to provide teacher education faculty names; for both of these, the number sampled was about

half the number of education faculty. The survey was sent to a total of 960 university faculty, with institutional representation proportional to the size of the school or college of education. Results reported are based on 558 returns. University return rate was 58% overall. The range of the 19 individual university return rates was 24% to 76%.

Eighteen of the nineteen universities provided names of public school teachers and building administrators with whom they worked. Public school sample sizes were made roughly equivalent to their partner university sample sizes. The University of Chicago did not provide a public school sample. Faculty sample size for this university was small (n=19), and the same geographic area was covered with the University of Illinois-Chicago public school sample (n=50). Contact people used their knowledge of public school sites to intentionally sample some public school educators with collaboration experience and some without. Eleven of the contact people sent or delivered surveys to the public school sample themselves; seven provided mailing lists for individual mailings. A total of 1050 public school surveys were mailed. Reported results are based on 661 returns. Public school return rate overall was 63%. The range of the 18 individual public school groups' return rates was 31% to 96%.

C: Data Collection and Analysis

Data were collected by mail. No organized follow-up mailing was possible across the 37 different subsamples. Follow-up telephone calls to contact people were made as needed. Item responses from returned surveys were entered into a computer data file and analyzed with SAS, SPSSX, LISREL, and hand calculations. Written comments were collated and sorted with the Notebook II computer program and were organized according to the four dimensions.

Statistical analysis of item responses proceeded in the following order. Reliability analysis included calculating Cronbach's alpha for each scale, examining item intercorrelations, and revising scales for final use. Confirmatory factor analysis included specifying a four-factor model for the forty-five items and testing how this model fit the data.

Scale scores were standardized, after summing items, with a mean of 50 and a standard deviation of 10. This put each scale into the same metric. Scale intercorrelations were mixed, ranging from -.21 to .52. While the factors were not highly correlated, the correlations were not uniform. Thus, a multivariate analysis of variance (MANOVA) was chosen over the other option, univariate repeated measures analysis of variance, for an overall first look at the data. MANOVA makes use of dependent variable correlations, while the univariate repeated measures ANOVA assumes equal dependent variable correlations. Factors investigated with MANOVA included position (teacher, principal, or university faculty), collaboration experience (yes or no), and university affiliation. These factors matched the research objectives.

After differences were identified with the multivariate procedure, however, univariate follow-up analysis of mean scale scores was chosen for interpretation. No assumptions about the data are violated by proceeding in this way, and the research question demanded a univariate treatment: information about group differences was sought for particular scale scores, not some combination of them.

Results

Reliability

Cronbach's alpha and item intercorrelations were calculated for each scale. Three of the scales each included one item which did not seem to fit statistically. The content and wording of these three items, upon rereading and reconsidering, was judged more vague than the rest of the items. Since the statistical results had flagged a content problem, the items were dropped. The scales used for MANOVA and follow-up analyses were as follows: Tempo (ten items, numbers 1, 5, 9, 13, 17, 21, 25, 29, 33, and 37, alpha=.76), Focus (eleven items, numbers 2, 6, 10, 14, 18, 22, 25, 26, 34, 38, and 41, alpha=.63), Reward (eleven items, numbers 3, 11, 15, 19, 23, 27, 31, 35, 39, 42, and 45, alpha=.62), and Power (thirteen items, numbers 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 43, 44, and 45, alpha=.75).

Factor Analysis

Confirmatory factor analysis by the method of maximum likelihood was done to test whether a four-factor model did fit the correlation structure of the items. Some of the distributions of responses for individual items were quite skewed, depressing the value of item intercorrelations. Since the data departed from multivariate normality, it was expected that the confirmatory factor analysis would not be able to fit an entirely satisfactory model to the data, as tested by a chi-square goodness of fit test (Joreskog & Sorbom, 1986). This was indeed the case, but by another measure, root mean square residual, the model did not fit badly. The Reward and Power scales were allowed to be correlated. A four-factor model, with the items assigned to factors as listed in the previous paragraph, had a root mean square residual of .086, even though chi-square with 944 degrees of freedom was 5371.41. T-values for all parameters in the model were significant.

Thus it appeared that a four-factor model was reasonable, given the skewed distributions in the data. To demonstrate that the poor fit of the four-factor model was because of lack of multivariate normality and not because another number of factors would be more appropriate, maximum likelihood exploratory factor analysis was done on the same item correlation structure, checking models with five, six, and seven factors. Even a seven-factor model did not attain a good fit, although seven factors explained 100% of the common variance. Chi-square for this model was 1893.61 with 696 degrees of freedom, and the Tucker-Lewis coefficient was .85, still short of the .90 or better generally considered to indicate an acceptable model.

The exploratory factor analyses demonstrated that no model would fit the data very well. The skewed distributions were therefore judged to be the cause of the problem. The four-factor model fit as well as could be expected, and it succeeded in reproducing the original correlation matrix fairly well, as measured by the root mean square residual. In addition, it was interpretable, and so the four-factor model specified in the confirmatory factor analysis was accepted as the best one.

Three-factor MANOVA

The results of a three-factor MANOVA on the four standardized scale scores indicated a main effect for position (Wilks' Lambda=.695, F(6,2242)=74.66, p=.0000). There was a main effect for collaboration experience (Wilks' Lambda=.987, F(3,1121)=4.83, p=.0024). There was a main effect for university (Wilks' Lambda=.936, F(54,3340.95)=1.38, p=.0338); however, both two-way interactions involving university were also significant. The university by position interaction effect was significant (Wilks' Lambda=.886, F(87,3355.03)=1.59, p=.0005). The university by collaboration interaction effect was also significant (Wilks' Lambda=.937, F(54,3340.95)=1.37, p=.0378). Neither the three-way interaction (position by collaboration by university) nor the position by collaboration interaction was significant.

Mean scale scores on each dimension, for each position for each university, were examined to interpret the position by university interaction. Two things were apparent. First, cell sizes ranged from 1 to 59, causing some means to be stable estimates and some unstable. Second, among the cells with reasonable sample sizes, the pattern of mean scale scores by position for individual universities generally matched the overall pattern of means by position, with differences in degree rather than in direction. For example, each university's teacher group had a higher focus score than that university's faculty group, but how much higher differed slightly among the universities.

University affiliation thus did make a difference in scale scores, and the amount of difference related to position and collaboration experience varied among universities. Some of this variation may be attributed to the differences in public school sampling procedures among universities, and some probably reflects genuine differences among subcultures. This variation will be discussed further in the Discussion section. Because most of the university variations were differences in degree, not in kind, scale scores were collapsed across universities for analysis of patterns of difference by position and collaboration experience. Interpretations and conclusions drawn from the results of these further analyses will be tempered with the results of this three-factor MANOVA: perceptions of educators from any given university can be partly explained by the larger educational culture to which they belong, but will be partly influenced by the local setting or subculture.

Two-factor MANOVA

A second MANOVA on the four standardized scale scores was done with position and collaboration as the factors of interest. The results in Table 1 show that there was no interaction between position and collaboration (Wilks' Lambda=.997, F(6,2422)=.53, p=.79). Therefore, the main effects were examined. The position effect was large (Wilks' Lambda=.657, F(6,2422)=94.43, p=.0000). There was a significant collaboration effect (Wilks' Lambda=.993, F(3,1211)=2.98, p=.03). The number of respondents in each group is presented in Table 2.

Univariate follow-up was done, as explained in the Methodology section, because the study's guiding questions focused on differences among groups for the four dimensions individually. Once position and collaboration effects had been identified with the MANOVA, univariate analyses of variance (ANOVA's) looked for the location of significant differences by position and collaboration, for each scale separately. The results of these ANOVA's and their follow-up contrasts, as well as the means themselves, are presented in Tables 3 through 10. For smoothness of style, the word "significantly" will not be repeated in most of the rest of the Results section. If a mean score is pronounced "higher" or "lower" than another mean, the reader may assume they are statistically significantly different. As an aid in interpretation, the reader should keep in mind that 50 was the mean of the standardized scores for each scale. Group means above 50 represented relatively higher scores for the group's members on the scale. Group means below 50 represented relatively lower scores for the group's members on the scale.

Tempo (Tables 3 and 4)

Standardized Tempo scale scores differed by position ($F(2,1213)=8.19$). The highest mean Tempo score was that of school principals, 52.57. This was higher that the mean Tempo score for teachers, 50.36, which in turn was higher than the mean Tempo score for university faculty, 49.06. This pattern also held among those who did not have collaboration experience: administrators' mean score was higher than teachers' mean score, which was higher than faculty mean score. Faculty with collaboration experience, however, had higher Tempo scores than their colleagues without collaboration experience: 49.61 as opposed to 48.07, $F(1,1213)=3.06$. Among those with collaboration experience, then, only the extreme scores were still significantly different (administrators' mean of 52.52 was higher than the faculty mean of 49.61, $F(1,1213)=4.72$). The collaboration effect for faculty was not strong enough to cause a main effect for collaboration in the overall ANOVA because there was no difference at all in mean Tempo scores between teachers or administrators with and without collaboration experience.

Focus (Tables 5 and 6)

Standardized Focus scale scores differed by position ($F(2,1213)=257.87$) and by collaboration experience ($F(1,1213)=3.90$). The Focus mean scores were the most extreme of the four scale score means (see Figure 1). The difference was between teachers, whose mean Focus score (56.24) was much higher, and the other two groups, whose mean Focus scores (44.96 for administrators and 45.23 for faculty) were much lower. This pattern held in the contrasts involving only those who had collaboration experience as well as only those who had not had collaboration experience: teachers had higher focus scores. The collaboration effect was most noticeable between teachers with and without collaboration experience ($F(1,1213)=3.00$). Regardless of position, however, the direction of the change in mean Focus scores between those with and without collaboration experience was the same. Mean scores among collaborators were higher than for non-collaborators.

Reward (Tables 7 and 8)

Standardized Reward scale scores showed both position ($F(2,1213)=5.42$) and collaboration ($F(1,1213)=17.29$) main effects. Regardless of position, mean Reward scale scores were higher for those who had collaborated. The mean Reward scale score for teachers who had collaboration experience was 50.21, as compared with 47.61 for teachers without collaboration experience, $F(1,1213)=8.93$. The mean Reward scale score for administrators with collaboration experience was 51.74, as compared with 48.05 for administrators without collaboration experience, $F(1,1213)=4.57$. The mean Reward scale score for faculty with collaboration experience was 52.20, as compared with 49.68 for faculty without collaboration experience, $F(1,1213)=8.43$. The position effect was that teachers' mean Reward scale score (48.66) was lower than the mean score for faculty (51.30). Administrators' mean score (49.90) occupied a middle position not different from either of the extremes.

Power (Tables 9 and 10)

Standardized Power scale scores showed a main effect for position ($F(2,1213)=13.37$) and a main effect for collaboration ($F(1,1213)=4.83$). The mean Power scale score for teachers (48.28) was lower than the mean scores for administrators (52.35) and faculty (51.09), which were not different. The collaboration effect was that those with collaboration experience had higher mean Power scale scores that those without. This was particularly noticeable among administrators ($F(1,1213)=3.49$). The mean Power scale score for administrators with collaboration experience was 53.97, as compared with 50.73 for administrators without collaboration experience.

Summary

The standardized scale scores for Tempo, Focus, Reward, and Power differed overall by university, position, and collaboration experience. The position effect was much stronger than the collaboration effect. There was a university-by-position interaction and a university-by-collaboration interaction. The size of the differences between means by position and collaboration varied with university affiliation, but their pattern and direction generally did not.

The main effect by position was as follows. All three groups, teachers, school administrators, and university faculty, had different mean Tempo scale scores: administrators' mean was higher than teachers', which was higher than faculty mean Tempo scores. For the other three scales, Focus, Reward, and Power, teachers were set apart from the other groups. Teachers' mean Focus score was much higher than either administrator or faculty mean Focus score. In a similar grouping but in the opposite direction, teachers' mean Power score was lower than either administrator or faculty mean Power score. Likewise, teachers' mean Reward scale score was lower than faculty mean Reward score, although administrators occupied a middle position not significantly different from either of the other groups. Thus mean Tempo score was different for each group, but Focus, Reward, and Power scores essentially grouped teachers by themselves, different from administrators and faculty, who were similar on these scales.

The main effect by collaboration did not result in mean differences as large as for the position effect. This effect obtained only for the Focus, Reward, and Power scales. For each position, those who had collaboration experience had higher Focus, Reward, and Power scale scores than those who did not.

Discussion

A brief redefinition of these scale score labels is in order. All four scale scores were measures of self-perceptions: scale scores represented how things felt to the respondent, not necessarily how they would appear to a more objective observer. This is appropriate to Geertz's (1973) concept of culture as a shared system for constructing meaning out of experiences. People will decide how to behave and how to interpret others' behavior based on how they perceive things. Perceptions are not entirely the product of individual psychology, however; they are based on shared frames of reference (Mitchell, Ortiz, & Mitchell, 1987).

The four dimensions or frames of reference indexed by the scale scores in this study were Tempo, Focus, Reward, and Power. The Tempo scale measured the self-perceived amount of time available to do one's allotted tasks, including how quickly one needed to move and how often one was interrupted. The Focus scale measured how practical or theoretical one perceived one's work. A more practical orientation implied work concerned with application of knowledge in concrete situations, with planning for specific activities. A more theoretical orientation implied work concerned with ideas themselves, rather than their application. The Reward scale measured how much one agreed that a variety of different rewards were important. A more reward-oriented person was more likely to agree that respect, status, collegiality, money, and fame were important to him or her. The Power dimension measured how likely one was to agree that one's professional activities led to intended outcomes, that one could make decisions that would have effects, and that one could choose what ought to be done.

A: Summated Rating Scales to Measure Shared Frames of Reference

The results supported an affirmative answer to the methodological part of the research objectives. The summated rating scales did function to measure shared perceptions, intepretable from a cultural perspective. This was anticipated, since the summated rating scale was developed for the purpose of measuring attitudes and perceptions (Likert, 1974). This study gave two kinds of evidence that this measurement methodology was useful for investigating research questions set, like the ones for this study, in a cultural framework. First, the items used in scale development, and the four scales themselves, were a product of a literature review which emphasized the cultural perspectives of educators. Scales constructed in this way showed themselves to be amenable to the traditional development process for summated rating scales: pilot testing, inspection of alpha and item intercorrelations, and revision based on both statistical and content concerns. A

confirmatory factor analysis established that, in final form, a four-factor model fit the data. This means that among that group of items, the public school and university educators continued to respond along the four hypothesized dimensions. Respondents grouped items in their own minds into four different sets, corresponding to the hypothesized dimensions of professional Tempo, Focus, Reward, and Power.

The second kind of evidence that summated rating scales did tap shared frames of reference in the cultural sense was that the scale scores did correspond to the substantive hypotheses. This was evidence that the constructs indexed by the scale scores were validly measured by their respective scales. One traditional check for the construct validity of any measurement instrument is to see whether the scores behave as one would expect, given what the scores are supposed to measure. Section B below explores how the data fit the hypotheses.

Since the methodological research objective was satisfied, the substantive discussion in the next section can be taken seriously. There are limits to the paper-and-pencil, survey methodology. These include incomplete returns and responses influenced by the manner in which the items are written. Results are also limited by the precision of measurement; however, the large number of significant differences obtained in this study implies that the effect of low reliability on these results was minimal. If alpha for the four scales were improved, the group differences would probably be even more pronounced.

The importance of demonstrating the usefulness of summated rating scales to measure shared perceptions should also be emphasized. Rosenholtz (1987) insisted that research should be one tool used for making policy decisions. She argued that information should be gathered and analyzed before important policy changes involved in educational reforms are set in place. Data gathered for policy research could help avoid many difficulties and setbacks, help predict areas of particular strength or potential weakness, and help select appropriate policies and methods for implementing them. If an educational reform policy is to touch many institutions, then it will not be possible to do in-depth case analysis for policy research; there will simply be too many settings involved. A paper-and-pencil approach would be useful in these cases.

The particular educational policy which the investigators had in mind as the impetus for this study was school-university collaboration. The educational reforms which the Holmes Group in general, and the Midwest Holmes Group in particular, have outlined involve this method. School-university collaboration is most clearly involved in Holmes goal four, "to create partnerships between schools of education and schools" (Holmes Group, 1986). Current work on Professional Development Schools is one outcome of progress toward this goal. A policy research implication from this study is that these data are valid and will be useful input for work on collaborative projects, including work on Professional Development Schools. Other data gathered with carefully constructed paper-and-pencil instruments may also be used. While they will not tell everything, they

will highlight some important considerations. Taking cultural perspectives into account may lower risks of miscommunication, working at cross-purposes, bad feelings, and thus, ultimately, project failures. Section B below identifies specific considerations to which these results draw attention and their implications for school-university collaboration.

B: Work Perceptions of Professional Educators

The results of this study included both position- and collaboration-by-university interaction effects and a main effect for university affiliation. This is evidence for what Feiman-Nemser and Floden called subcultures. They acknowledged a tension between the need to explore the commonalities among educators in various educational settings and the fact that each educational setting is different. Their metaphor for this was "finding common threads in a complex carpet" (Feiman-Nemser & Floden, 1986, p. 507).

The interaction effects on the four dimensions offered evidence that subcultural variation existed. How separated teachers, administrators, and faculty were, in any given university and affiliated public school grouping, differed among the nineteen Midwest Holmes institutions. How much of a difference collaboration made differed among universities. With few exceptions, however, the interactions were of differences in degree. The patterns of mean scores for teachers, administrators, and faculty from each university were more or less severely different from one another, but the position effects were similar for each university. This implies that some universities will be working with groups which are more at odds than others as they initiate collaborative projects or continue work on present projects. Comparisons of response patterns among individual universities cannot be definitively interpreted because faculty samples were random but public schools samples were not.

Two conclusions, then, are suggested by the existence of a university effect and position- and collaboration-by-university interactions. First, subcultural differences were found among educational settings. When any particular university sits at the conference table with its public school colleagues to work on any collaborative project, participants must keep their eyes and ears open for the particular dynamics of the group. The second conclusion follows from the first. Given the findings of this study, it would be wise policy to enter any collaborative activities mindful of, and ready to deal with, the most severe differences found among positions. Better to be more sensitive than necessary than not sensitive enough.

This study did highlight some important differences that held up despite local variations. There are some "common threads" in the warp and woof of the education tapestry. General conclusions based on this study are limited in the strict sense to the Midwest Holmes group. This is, however, a relatively large group. It is expected that the results apply to other large universities and the public schools with which they work, but probably not to small four-year colleges which prepare teachers.

These results were intended to be general indications of educators' work culture, of the sort measureable with a paper-and-pencil instrument, and for that reason also they will generalize more broadly than would the subtleties of an ethnographic study. One of the objectives of the study was to find a way to collect data that could highlight general concerns (Sirotnik & Goodlad, 1988) and provide input for working with them. Once some issues in the field are defined, participants in individual settings will be better prepared to know what to look for in their own work.

The substantive results of this study confirmed all hypotheses. It had been hypothesized that teachers who collaborated would score higher on the Power scale than those who had not collaborated. This hypothesis was influenced by individual cases in which teachers who collaborated reported feeling more professional and capable (Parkay, 1986; Hering & Howey, 1982; Tikunoff, Ward, & Griffin, 1979). Collaboration showed a significant main effect on the Power scale scores in this study, but the effect was most pronounced for administrators. Since this was not an experimental study, these results cannot be pressed to say that the experience of collaboration caused an increase in educators' feelings of ability and accomplishment. This idea is nevertheless supported by these results in conjunction with the literature just cited. A recommendation for further research is to do a longitudinal study, starting with a group of educators prior to the commencement of a school-university collaborative project and following them through the process, to see whether collaboration can be demonstrated to cause an increase in Power perceptions.

Collaboration also had an effect on the Focus and Reward scale scores. Those who reported they had collaboration experience had higher mean scores on each scale. These differences are interpretable within the theoretical framework of this study. All those who have collaborated, from universities and public schools, have experienced complicated committeework, arrangements, and new professional tasks. A higher Focus score indicated a more practical orientation, which may be an expected outcome of coordinating one's efforts with others.

The Reward scale scores were correlated with Power scale scores ($r=.52$). This means the Reward scale scores, which were higher for those with collaboration experience than for those without, were moderately related to the Power scale scores for which this effect was expected. The literature which indicated teachers who collaborated felt more "professional" (Parkay, 1986, p. 389) can sensibly be read to imply that teachers were pleased to be accorded professional status, indexed in this study by the Reward scale. On the other hand, in at least one case history of a particular school-university consortium, the report was that for school administrators and teachers, tangible rewards from participation were not forthcoming (Sirotnik & Goodlad, 1988, pp. 163-164). While a higher mean Reward scale score indicates those who collaborated were more interested in career rewards, this may remain at the wish level until school-university collaboration as an activity develops to a greater degree.

The strongest differences among scale scores were by position. Results by position were consistent with hypotheses. Teachers, school administrators, and university faculty did not approach the four dimensions with the same perspectives. The three groups all differed with respect to Tempo. Administrators reported running the fastest; teachers were in the middle; faculty perceived themselves as having the slowest work tempo. Implications for collaboration are simple but easy to overlook. Differing expectations for time commitments can have adverse effects on collaboration (Sirotnik & Goodlad, 1988). These results suggest that on project work, time expectations should be made explicit and not assumed. Once they are explicit, collaborators can expect to differ as they dicuss time concerns. Faculty should realize that a quicker pace is the norm for administrators, and should be careful not to attribute a desire to move ahead quickly to impatience. Administrators and teachers should be warned that faculty who seem to move too slowly for their tastes are not dragging their feet, but are merely proceeding according to different norms. In light of these understandings, participants may make a clear and concerted effort to communicate time expectations with each other and work out what must be done on any given project.

The remaining three frames of reference demonstrated a pattern with perhaps more serious implications than the Tempo differences. The Focus results pointed out that teachers' orientations were very much more practical than either public school administrators or university faculty. This was the largest difference found in the whole study, as was expected. The practicality of teachers is well documented (Lieberman & Miller, 1984), as are the differences in practicality between teachers and researchers (Tikunoff, Ward, & Griffin, 1979). One teacher's written comment illustrated the effects of the difference in practicality between teachers and administrators, too. The teacher wrote by Item 14, about knowing ahead of time what one would do on a given day, "I know what I plan to do, what I need to do and what I want to do. Poor planning and disorganization on the administrative level often makes my plans impossible to implement (interruptions, unannounced happenings on a daily basis.)" This teacher clearly valued planning ahead and perceived administrator actions to mean the administrator was "poor" at this important function. The Focus differences found in this study suggest that the administrator did not intend to scuttle plans, but rather was operating from a different perspective, according to which activity planning was less central than it was for the teacher.

The Power scale results created a similar grouping; teachers perceived themselves as significantly less powerful than either administrators or faculty. This point has been made directly in essays on the topic (Cooper, 1988; Buchmann, 1985). In addition, a power differential between teachers and faculty has been cited as a problem in descriptions of particular collaborative projects (Sirotnik & Goodlad, 1988; Gifford & Gabelko, 1987). Notes written on the questionnaires illustrated this power difference. Beside Item 43, which referred to supervision, six

faculty members from five different institutions wrote they had no supervisor.

The Reward scale pattern was similar in separating teachers from faculty; faculty registered a larger interest in career rewards than did teachers. The adminstrators were in the middle on the Reward scale. Intrinsic rewards have been found to be more important to teachers than extrinsic ones in other studies, as well (Kottkamp, Provenzo, & Cohn, 1986; Lortie, 1975). In response to Item 23's query about promotions and raises, one teacher wrote, "Teachers are not rewarded in this way. Their reward is self-gratification!"

Notice the pattern here, emphasized by its being repeated three times. On three major dimensions of work perceptions, central to the culture of one's educational setting, teachers were different from both administrators and faculty, who were similar to each other. At work on collaborative projects, the teacher group can be expected to be the "odd man out." This implies teacher representatives in collaboration are at the greatest risk of misunderstanding proceedings and of being misunderstood. It implies that what teachers see as their contributions may not be evaluated against the norms under which they were conceived. It implies that even with equal representation on committees, teachers may hold a minority opinion.

The Focus, Reward, and Power differences are three specific areas in which committees may either founder or, recognizing cultural differences for what they are, handle issues with sensitivity. The following scenarios are by no means exhaustive. They are meant to illustrate and concretize the implications of this study. Knowing the kinds of situations to expect will help educators in all three positions be prepared to meet them effectively. Consider these possibilities.

Focus differences may serve to isolate teachers. Consider a collaborative research project on mathematics education. Teachers may want to focus a research question on which textbook series is more effective for teaching basic math. Administrators and faculty may misunderstand this desire to investigate practice, treating it as unimportant because it does not focus on how the children comprehend the math. Teachers may perceive that their input into formation of the research question is dismissed, but they may not perceive the reason, that the salience of the practical which is normative for teachers is not shared by the others. Feeling dismissed out of hand, the teachers may not work very hard for the project, may possibly sabotage the effort, and it may not be very successful.

Reward differences may serve to isolate teachers. Consider another collaborative project, a committee working on preservice teacher training. Teachers may feel their relationships with student teachers are sufficient reason to be involved in the project. Faculty may not be as enthusiastically present, observing and advising, as the teachers wish,

because the results of the project will not directly translate into publishable work. Teachers may feel faculty are cold and distant if they are not enthusiastic, when in fact they are responding to a different norm for work rewards.

Power differences may serve to isolate teachers. In a third hypothetical collaborative project, teachers may speak more tentatively in committee and be perceived as timid or as lacking confidence that their suggestions are valid. Their suggestions may thus be taken less seriously for reasons of group dynamics, reinforcing the teachers' feelings that they have less power than the others on the committee. In fact the merits of their suggestions never get tested in discussion.

These three scenarios illustrate the difficulties in which teacher collaborators may find themselves, based on interpreting the obtained scale score differences by position in the results of this study. Teachers are not the only ones who risk being misunderstood in school-university collaboration if they are a cultural minority, however. Teachers may unfairly and too quickly dismiss faculty or administrators as unrealistic, judging being practical and classroom-centered as the only way to be correct. Administrators, faculty, and the whole school-university collaborative project will be at risk to the degree that participants talk past each other. Differences in norms, expectations, and perceptions may, if not made explicit, be taken as personal affronts. Communication may break down. Are there ways to use differences to maximize payoffs for all? That is one of the greatest challenges of the Holmes collaborative movement.

It is at this point that the results of this study can make concrete contributions. The study identifies four particular areas on which communication, including making values and assumptions clear, must occur. These results flag the dimensions of Tempo, Focus, Reward, and Power as particular issues for collaborators. School-university committees will want to include these in specific discussions of agenda items. They will want to consider what is normative for each participant, to discuss expectations and negotiate points of compromise so that all participants feel positive and gain from the collaborative experience. Each has a contribution to make to the work.

Finally, the results of this study emphasize that school-university collaboration, for all its difficulties, is a necessary method for educators to use if they really want different points of view represented. This study has given evidence that university and public school educators have different normative perspectives on four dimensions central to the definition of educational goals and strategies for meeting them: Tempo, Focus, Reward, and Power. There are two cultures, and within them many subcultures. For a project to be sensitive to and benefit from different points of view, it must include knowledgeable and open-minded participants from both cultures. This study's results will help such participants begin dialogue with an idea of where their colleagues are coming from and thus will help maximize how far they can go.

Table 1

Two-factor MANOVA on Four Scale Scores,
by Position and Collaboration Experience

Source	df	Wilks' Lambda	F	p
Dimensions	3,1211	.976	10.01	.0001
Dimensions X Position	6,2422	.657	94.43	.0000
Dimensions X Collaboration	3,1211	.993	2.98	.0307
Dimensions X Position X Collaboration	6,2422	.997	.53	.7884

Dimensions -- Four standardized scale scores (Tempo, Focus, Reward, Power)

Position -- Teacher, Public school administrator, or University education faculty

Collaboration -- Yes or No (Yes means at least 3 months' experience)

Table 2

Number of Respondents in Each Group,
by Position and Collaboration Experience

Position	Collaboration No	Yes	Total
Teacher	317	214	531
School Administrator	65	65	130
University Faculty	199	359	558

Table 3

Follow-up Analysis of Tempo Scale Score Means, by Position and Collaboration Experience

Source	df	SS (adjusted)	MS	F
Position	2	1622.21	811.11	8.19*
Collaboration	1	66.75	66.75	.67
Position X Collaboration	2	125.98	62.99	.64
Error	1213	120064.24	98.98	

Contrasts	F
Collab vs. Not for Teachers	.13
Collab vs. Not for Administrators	.00
Collab vs. Not for Faculty	3.06**
Teachers vs. Admin. with No Collab.	3.10**
Admin. vs. Faculty with No Collab.	10.23*
Teachers vs. Faculty with No Collab.	5.78*
Teachers vs. Admin. with Collab.	1.97
Admin. vs. Faculty with Collab.	4.72*
Teachers vs. Faculty with Collab.	1.19
Teachers vs. Administrators	4.97*
Administrators vs. Faculty	14.57*
Teachers vs. Faculty	6.21*

* $p < .05$, ** $p < .10$

Table 4

Tempo Scale Score Means, by Position and Collaboration Experience

Position	Collaboration		Total
	No	Yes	
Teacher	50.23	50.55	50.36
School Administrator	52.62	52.52	52.57
University Faculty	48.07	49.61	49.06

Table 5

Follow-up Analysis of Focus Scale Score Means, by Position and Collaboration Experience

Source	df	SS (adjusted)	MS	F
Position	2	36054.65	18027.33	257.87*
Collaboration	1	272.94	272.94	3.90*
Position X Collaboration	2	43.24	21.62	.31
Error	1213	84800.67	69.91	

Contrasts	F
Collab vs. Not for Teachers	3.00**
Collab vs. Not for Administrators	1.29
Collab vs. Not for Faculty	.69
Teachers vs. Admin. with No Collab.	103.72*
Admin. vs. Faculty with No Collab.	.35
Teachers vs. Faculty with No Collab.	207.19*
Teachers vs. Admin. with Collab.	89.64*
Admin. vs. Faculty with Collab.	.09
Teachers vs. Faculty with Collab.	255.92*
Teachers vs. Administrators	192.76*
Administrators vs. Faculty	.05
Teachers vs. Faculty	460.46*

* $p < .05$, ** $p < .10$

Table 6

Focus Scale Score Means, by Position and Collaboration Experience

Position	Collaboration No	Collaboration Yes	Total
Teacher	55.72	57.01	56.24
School Administrator	44.13	45.79	44.96
University Faculty	44.84	45.45	45.23

Table 7

Follow-up Analysis of Reward Scale Score Means, by Position and Collaboration Experience

Source	df	SS (adjusted)	MS	F
Position	2	1053.03	526.52	5.42*
Collaboration	1	1679.11	1679.11	17.29*
Position X Collaboration	2	37.14	18.57	.19
Error	1213	117768.12	97.09	

Contrasts	F
Collab vs. Not for Teachers	8.93*
Collab vs. Not for Administrators	4.57*
Collab vs. Not for Faculty	8.43*
Teachers vs. Admin. with No Collab.	.11
Admin. vs. Faculty with No Collab.	1.33
Teachers vs. Faculty with No Collab.	5.38*
Teachers vs. Admin. with Collab.	1.21
Admin. vs. Faculty with Collab.	.12
Teachers vs. Faculty with Collab.	5.47*
Teachers vs. Administrators	1.04
Administrators vs. Faculty	1.16
Teachers vs. Faculty	10.85*

* $p < .05$

Table 8

Reward Scale Score Means, by Position and Collaboration Experience

Position	Collaboration		Total
	No	Yes	
Teacher	47.61	50.21	48.66
School Administrator	48.05	51.74	49.90
University Faculty	49.68	52.20	51.30

Table 9

Follow-up Analysis of Power Scale Score Means, by Position and Collaboration Experience

Source	df	SS (adjusted)	MS	F
Position	2	2609.01	1304.51	13.37*
Collaboration	1	471.25	471.25	4.83*
Position X Collaboration	2	193.73	96.87	.99
Error	1213	118359.03	97.58	

Contrasts	F
Collab vs. Not for Teachers	1.14
Collab vs. Not for Administrators	3.49**
Collab vs. Not for Faculty	.34
Teachers vs. Admin. with No Collab.	4.43*
Admin. vs. Faculty with No Collab.	.00
Teachers vs. Faculty with No Collab.	10.25*
Teachers vs. Admin. with Collab.	13.46*
Admin. vs. Faculty with Collab.	4.09*
Teachers vs. Faculty with Collab.	8.17*
Teachers vs. Administrators	16.84*
Administrators vs. Faculty	1.88
Teachers vs. Faculty	18.41*

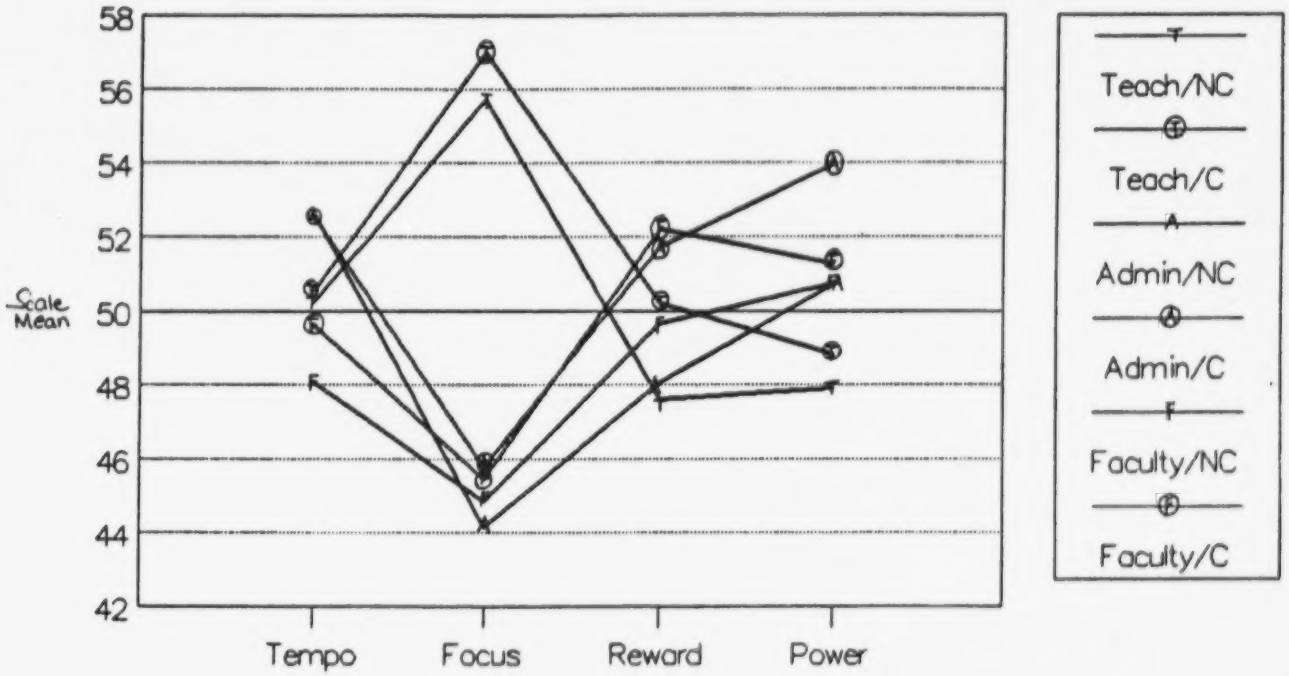
* $p < .05$, ** $p < .10$

Table 10

Power Scale Score Means, by Position and Collaboration Experience

Position	Collaboration No	Collaboration Yes	Total
Teacher	47.90	48.83	48.28
School Administrator	50.73	53.97	52.35
University Faculty	50.76	51.27	51.09

Fig. 1 -- Mean Scale Scores by Position and Collaboration Experience



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Appendix

Survey Instrument

Work Perceptions of Professional Educators

You have received this survey because you work either in a Midwest Holmes Group university or in a public school which cooperates with a Midwest Holmes Group university. The Midwest Holmes Group is interested in collaboration between schools and universities.

Working as an educator in a university setting is different from working as an educator in a public school. Educators also share some common thoughts and feelings. More understanding among educators should lead to more successful collaboration.

This study seeks to measure educators' perceptions of what their professional practice is like. The items in this survey are based on literature about educational cultures and collaboration and on dialogue with teachers, administrators, and university faculty. The results of this study will be reported in summary form. Information will be kept confidential.

The attached survey asks you to reflect on how <u>you</u> think and feel about <u>your</u> professional activities. Your perceptions are unique to you and your educational setting. If you do not respond, your point of view is left unrepresented! Please circle your honest response to each of the items. There are no right or wrong answers. Use the following scale:

SD -- strongly disagree
D -- disagree
N -- neutral or no opinion
A -- agree
SA -- strongly agree

Please complete the entire survey, <u>including</u> the informational page. Your responses can only be used properly if you provide complete information because the context of your work affects your perceptions. If there are comments you would like to make, please write them on the back of the survey. Thank you.

Please complete your survey within two weeks of receiving it.
Return it to If it is more convenient, mail it to

Susan M. Brookhart
College of Education
The Ohio State University
163 Arps Hall, 1945 N. High St.
Columbus, OH 43210-1172

1.	I have enough time to complete my tasks during my work day.	SD	D	N	A	SA
2.	I must adapt my work to the daily schedule.	SD	D	N	A	SA
3.	I enjoy reflecting on what I do.	SD	D	N	A	SA
4.	As an educator, I consider myself part of a team that includes teachers, school administrators, and university education professors.	SD	D	N	A	SA
5.	On my job, I often need to respond to several demands on my time at once.	SD	D	N	A	SA
6.	I am used to dealing with time pressures.	SD	D	N	A	SA
7.	The basic purpose of educational research should be to discover general principles of teaching and learning.	SD	D	N	A	SA
8.	Too much educational research focuses on issues that don't really matter.	SD	D	N	A	SA
9.	I am often interrupted in my work.	SD	D	N	A	SA
10.	There is a definite pattern to my work day.	SD	D	N	A	SA
11.	Sharing ideas with colleagues is an important source of job satisfaction.	SD	D	N	A	SA
12.	My work focuses to a large degree on topics of interest to me.	SD	D	N	A	SA
13.	I feel rushed most of the time.	SD	D	N	A	SA
14.	I usually know ahead of time what I am going to do on a given day.	SD	D	N	A	SA
15.	Publishing or presenting my ideas to others is very rewarding.	SD	D	N	A	SA
16.	My profession makes me a respected member of the community in which I live.	SD	D	N	A	SA
17.	There is no pressure for me to get things done on time.	SD	D	N	A	SA
18.	I usually have a thought-out reason for what I do.	SD	D	N	A	SA
19.	The respect, status, and influence I have as an educator are important professional rewards.	SD	D	N	A	SA
20.	The way people treat me at work makes me feel important.	SD	D	N	A	SA
21.	At work, I do not accomplish everything I would like.	SD	D	N	A	SA

22. It is very important to discover what teaching methods work best in the classroom.	SD	D	N	A	SA
23. I look forward to promotions or raises as affirmations of my work.	SD	D	N	A	SA
24. I can choose my own agenda at work.	SD	D	N	A	SA
25. I take work home often.	SD	D	N	A	SA
26. It is very important to understand principles of learning.	SD	D	N	A	SA
27. Salary and benefits were not important considerations when I chose my profession.	SD	D	N	A	SA
28. What I do as an educator makes a difference.	SD	D	N	A	SA
29. At work, I am often in a hurry.	SD	D	N	A	SA
30. Sometimes I get so caught up in my thoughts I lose track of what I'm supposed to be doing.	SD	D	N	A	SA
31. I am happy when other people hear about good work I have done.	SD	D	N	A	SA
32. Too many aspects of my job are beyond my control.	SD	D	N	A	SA
33. A lot of my work is done spontaneously, as things come up.	SD	D	N	A	SA
34. I spend a good part of my time planning and thinking ahead.	SD	D	N	A	SA
35. Some day I would like to be well-known in my field.	SD	D	N	A	SA
36. I often feel like other people are in a position to tell me what to do.	SD	D	N	A	SA
37. I spend a good part of my day taking care of details.	SD	D	N	A	SA
38. I have a fixed schedule that determines when I do most of my work.	SD	D	N	A	SA
39. I feel comfortable saying I am good at my work.	SD	D	N	A	SA
40. I find it difficult to deal with institutional politics.	SD	D	N	A	SA
41. I feel it is important to plan and think ahead.	SD	D	N	A	SA
42. I use specialized knowledge which makes my work truly professional.	SD	D	N	A	SA
43. My supervisor gives me freedom to make professional decisions.	SD	D	N	A	SA
44. At work, I make many important decisions.	SD	D	N	A	SA
45. My work makes me an important person.	SD	D	N	A	SA

46. Circle the category that best describes your present position.

a. classroom teacher
b. school administrator
c. college or university faculty

47. How many years have you worked in each of the following professional capacities (if ever)?

a. classroom teacher _____ years
b. school administrator _____ years
c. college or university faculty _____ years

48. Have you ever worked on a research, teacher training, or inservice education project in which public school and university educators jointly set goals and planned the agenda? This means that planning and goal-setting were accomplished by a committee which included both university and public school educators.

a. no (Thank you. Please refer to the directions on the first page to return your completed survey.)
b. yes (Please continue with items 49 through 52.)

If you worked on more than one such project, answer the following questions for the project in which you were involved for the longest time.

49. How long did you work on the project?

a. less than a year (Please specify number of months.) _____ months

b. one year or more (Please specify number of years.) _____ years

50. How would you describe your overall level of involvement in the project?

a. limited
b. moderate
c. extensive

51. How often did you do work pertaining to the project? Choose the most representative answer.

a. daily
b. weekly
c. monthly
d. unevenly: at times daily, but sometimes not at all

52. What was (is) the major source(s) of funding for the project? Fill in percentages for all that apply.

a. school district _____ %
b. university _____ %
c. external funding _____ %
d. other _____ %

Thank you. Please refer to the directions on the first page to return your completed survey.